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***GUIDELINES FOR ECONOMIC ANALYSIS
OF FISHERY MANAGEMENT ACTIONS***

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GUIDELINES FOR ECONOMIC ANALYSIS OF
FISHERY MANAGEMENT ACTIONS

OFFICE OF SUSTAINABLE FISHERIES
NATIONAL MARINE FISHERIES SERVICE
SILVER SPRING, MARYLAND 20910

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GUIDELINES FOR ECONOMIC ANALYSIS OF FISHERY MANAGEMENT ACTIONS

I. INTRODUCTION

The purpose of this document is to provide guidance on understanding and meeting the procedural and analytical requirements of Executive Order (E.O.) 12866 and the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*) for regulatory actions of federally managed fisheries. However, much of the guidance provided in this document is relevant for other types of regulatory actions that are subject to E.O. 12866 and the RFA.

The National Marine Fisheries Service (NMFS) prepares a Regulatory Impact Review (RIR), which includes an analysis of the economic effects of the preferred and alternative actions. One of the purposes of the RIR is to comply with the requirements of E.O. 12866, except for the periodic review of significant regulations. The RIR is intended to assist the Councils and NMFS in selecting the regulatory approach that maximizes net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

Regulatory Flexibility Act Analysis (RFAA) is necessary to satisfy the requirements of the RFA. The RFAA should assess the impacts of the proposed/final rule on small entities and describe steps the agency has taken to minimize any significant economic impact on small entities while still achieving regulatory goals. The general intent of the RIR and RFAA analytical and process requirements is to make the decision process open and transparent so that all can understand the what, where, and why of regulatory decision-making and can agree that the required steps of the process were followed. The economic analyses provide decision-makers and the public with the agency's best estimates of the impacts of proposed actions and of their alternatives.

These Guidelines were developed by a team of NMFS economists, Regional Fishery Management Council (Council) staff, attorneys from the Office of General Counsel/Department of Commerce (OGC/DOC), and attorneys from the National Oceanic & Atmospheric Administration General Counsel for Fisheries (NOAA/GCF). In comparison to the previous RIR/RFAA guidelines, these guidelines --

- Incorporate the revisions to the RFA made by the Small Business Regulatory Enforcement Act.

- Revise the guidelines the agency will use to certify that a proposed regulation will not have a significant economic impact on a substantial number of small entities.
- Place greater emphasis on the need for the Councils and NMFS to have planning documents such as draft economic analyses at their disposal prior to identifying the preferred alternative. These documents should provide information on the economic effects of the selected alternatives, including effects on small entities. Also, these documents would be a source of information for solicitation of early public comments on the expected effects of the selected alternatives.
- Recognize the many similarities between the analyses required in RIR's and RFAA's by recommending key topic areas and organization for the regulatory analyst to consider when preparing the regulatory analysis.
- Recognize the growing regulatory emphasis on protected resources and habitat by recommending that analysts highlight, where appropriate, the effects on the non-consumptive uses of fisheries, other living marine resources, and the benefits derived from these resources and their habitats.

Although the RIR and the RFAA should be undertaken by those with economic expertise, these guidelines are written to ensure that non-economists understand what should be in the RIR and the RFAA. When undertaking the RIR and the RFAA, the analyst is expected to make a reasonable effort to organize the relevant information and supporting analyses, given the significance of the issue, projected time tables, and available resources. At a minimum, the RIR and the RFAA should include a good qualitative discussion of the economic effects of the selected alternatives. Quantification of these effects is desirable, but the analyst needs to weigh such quantification against the significance of the issue and available studies and resources. Generally, a good qualitative discussion of the expected effects would be better than poor quantitative analyses.

Economic analyses are also required to varying degrees under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and other applicable laws. The analyst should be aware of these other laws as he/she will often be working with other analysts conducting analyses to meet the requirements of these laws. For example, section 303(a)(9) of the Magnuson-Stevens Act requires a Fishery Impact

Statement (FIS). This includes an analysis of the effects of a proposed action on participants in the fishery and on fishing communities.

Analyses of regulatory actions for federally managed fisheries should strive to simultaneously meet the requirements of E.O. 12866, the RFA, and other laws, including Magnuson-Stevens Act, NEPA, and ESA. Appendix A contains brief descriptions of the requirements of these laws. The analyst should consult guidelines for these other laws contained in the NMFS "Rulemaking and the Regulatory Process Notebook" available from the NMFS Office of Sustainable Fisheries.

Economic analyses done early in the development of the regulatory process, along with biological, environmental, and social information, allow decision-makers to identify and explore the full range of management alternatives. Integrating the analytical requirements of the RIR, the RFAA, and other economic analyses into the Council and NMFS decision-making process will ensure that the best scientific information available can be used. Decision-makers will have a full suite of information available to make informed decisions for the resources and for all those who benefit from them.

The level of analysis may be constrained by a lack of available data and quantitative models. However, the analysis conducted should be sufficient to allow the Council and NMFS, on behalf of the Secretary of Commerce, to make informed decisions and to present, quantitatively or qualitatively, the expected economic effects for the management alternatives under consideration (i.e., the selected management alternatives).

These guidelines identify a step-wise approach that will aid in identifying data requirements and conducting economic analyses for regulatory actions. Although these guidelines focus on economic analyses for meeting the requirements of E.O. 12866 and the RFA, it should be emphasized that the first step in the development of a fishery management plan or a regulatory action for a federally managed fishery (other than identifying the goals and objectives) is a description of the biological, economic, social, and cultural characteristics of the fishery. This integrated multi-disciplinary approach in describing the fishery provides information on the data available and enables the analyst to identify data required for the analyses.

The following sections present details on the process and analyses to satisfy the requirements of E.O. 12866 and the RFA. Section II provides a general framework that could be utilized for economic analyses of regulatory actions. In Section III, the recommendation is made to have a preliminary analysis of the economic effects of the selected alternatives available prior to the determination of the preferred alternative. Sections IV and V describe the specific analytical and procedural requirements

for regulatory actions for federally managed fisheries as established by E.O. 12866 and the RFA, respectively.

This document is also likely to serve as a reference document. In this regard, it makes explicit use of cross referencing and indicates to the reader where to turn for greater details. The repetition of key ideas or concepts intends to aid the reader.

II. GENERAL FRAMEWORK FOR ECONOMIC ANALYSES OF REGULATORY ACTIONS

These guidelines do not prescribe methods. Rather, they identify analytical elements that should be addressed and identify the scope of analysis required under applicable law. Embodied in these guidelines is the principle that a well developed qualitative analysis may be preferable to a poorly specified complex analytical model. Economists may use several analytical options to meet the spirit and requirements of E.O. 12866, the RFA, and other applicable laws. The appropriate options depend on the circumstances to be analyzed, available data, the accumulated knowledge of the fishery and of other potentially affected entities, and on the nature of the regulatory action. The options may include, but are not limited to, complex multi-sector bioeconomic models, sparser static breakeven analysis, theory-informed qualitative descriptions, and other accepted forms of economic analysis.

A broad conceptual framework combining biological information with fishery economics is needed for both qualitative and quantitative analysis of fishery management actions. Analysis of fishery regulatory actions requires considering the relevant sociological, economic, and biological aspects of a fishery. The economic analyses of the effects of alternative management actions are expected to include both quantifiable measures and qualitative measures of the effects that are difficult to quantify but, nevertheless, essential to consider.

Analytical requirements for E.O. 12866 and the RFA overlap substantially. Although benefit-cost analysis is prominent in meeting the intent of E.O. 12866, it also requires broad consideration of the distributive effects and economic burden that may be imposed on individuals, businesses of differing sizes, as well as small communities and governmental entities. Thus, the level and types of analyses required under E.O. 12866 mirror to some extent those required under the RFA to analyze the effects on small entities.

Meeting the broad analytical requirements of E.O. 12866 requires consideration of both benefits and costs of regulatory alternatives from a national perspective as well as from that of

the private individual or firm.

But, even though the analytical requirements are similar, the RFA has specific process and content requirements that are not contained in E.O. 12866. Likewise, E.O. 12866 has specific requirements not contained in the RFA. Nevertheless, a carefully designed analysis can meet both requirements.

This fishery economic framework examines how a regulatory action affects demand for fishery products, recreational fishing opportunities, the supply of such products, and market interactions, which, in turn, affect fishing decisions and the conditions of living marine resources and their habitats. Analysis of these considerations may be subdivided into four basic components:

The first component is an analysis of potential changes in prices, quantities produced or consumed, fishing or observational trips, etc., as a result of changing supply and demand conditions in the marketplace. This information can be used to determine consumer surplus for various fishery products or activities and provides a partial measure of net benefits from the fishery. Expected price changes may be characterized by using a graphical analysis accounting for levels of imports, exports, domestic landings of substitute and complementary fishery products and other consumer goods, disposable income, and other effects.

The second component is an examination of the change in revenues and operating costs for firms or individuals in the fishery in response to changes in market, biological conditions, and fishery management regulations. Analysis of firm-level changes provide an indication of how producer surplus may change and, for small entities, the impact of regulatory actions. This firm-level analysis characterizes changes in harvesting costs and outputs in the fishery and may also be used to assess changes in potential industry output levels and fishing season length. Similar analyses can also be developed for the recreational sector and for non-consumptive users of the resource.

The third component is an analysis of how the regulation is expected to affect fishing fleets. Fleet size and composition change in response to market prices, biological conditions, and the regulatory environment. Consideration of price and operating cost changes will permit an evaluation of how fleet size and composition may change. In the absence of either reliable cost or price data, a qualitative discussion of changes in fleet size and composition may be presented. Participation rates within recreational fishing modes and for non-consumptive user groups should be addressed in a similar manner.

The fourth component of this economic framework makes use of the biological analysis that explains the response of the stock or stocks of living marine resources to the proposed regulation. Fishing mortality is a function of effort levels that are

determined by market and biological conditions and by fishery regulations. By treating the change in stock size as a factor in the economic objectives of individual fishermen or of the fleet as a whole, anticipated changes in fishing effort and its impact on the subsequent size of fish stocks and other living marine resources can be evaluated. It should be remembered that non-consumptive user groups assign values to the resource. These non-consumptive values may affect optimal stock sizes.

By melding these four components into an overall fishery economic framework, a reasoned assessment of the expected direction of change in net benefits to the nation, as well as the specific effects on individual small entities for a proposed regulatory action, may be evaluated. For each of the four components discussed above, a quantitative analysis should be substituted for a qualitative analysis when this is the appropriate option and when adequate data, resources, and defensible analytical models are available. It should be noted that a complex empirical model is not necessarily needed to analyze proposed changes for all regulatory actions. In many cases, the analysis will consist of a mix of qualitative and quantitative information. The resulting estimates of the changes in the consumer surplus associated with use and non-use values, producer surplus, management and enforcement costs, fleet size, employment, and stock abundance are examples of the types of information that may be used by fishery managers to determine whether their objectives and goals are achievable and to compare regulatory alternatives.

III. PRELIMINARY REGULATORY ECONOMIC EVALUATION

Although there are no statutory requirements to do so, NMFS recommends that a preliminary evaluation describing the expected economic effects of the selected alternatives be undertaken when the alternatives are developed but before a preferred alternative is identified and certainly, before Councils or NMFS approve any regulatory action. The primary intent for this recommended analysis is to provide early consideration of economic effects of regulatory action, not to delay or put up roadblocks to action.

In addition, such preliminary economic analyses could be used to solicit early public comments on the expected economic effects of the alternatives proposed and a platform from which information could be obtained to address the requirements of various applicable laws (e.g., E.O. 12866 and the RFA). The preliminary evaluation should be included in the document that goes out to public hearing or for public comment.

For purposes of these guidelines, this preliminary analysis

will be labeled a "Preliminary Regulatory Economic Evaluation" (PREE). The PREE should describe the general economic effects that may be reasonably anticipated to occur upon implementation of a management action. In keeping with applicable law (E.O. 12866 and the RFA), these effects may include effects on net benefits, distributive impacts, and small and large entities.

Depending on the specificity of the alternatives and the number and complexity of proposed alternatives, the PREE may be largely qualitative or may provide quantitative estimates of economic impact. At a minimum, a qualitative discussion of the expected economic impacts of the proposed alternatives should be provided. A quantitative analysis should be substituted for qualitative assessments when available data and resources are available. However, given the preliminary nature of the analysis, the analyst should use reasoned judgment in determining the level of analysis necessary for a particular issue. Regardless of which approach is used (qualitative, quantitative, or a combination of both), the PREE should provide the reader with an overall framework for assessing economic impacts.

IV. REGULATORY IMPACT REVIEW

The objective of Executive Order (E.O.) 12866 (58 FR 51735, October 4, 1993) is to improve the Federal regulatory system. One of the purposes of the RIR is to comply with the requirements of E.O. 12866. The regulatory philosophy of E.O. 12866 is reflected in the following statements:

Federal agencies should promulgate only such regulations as are required by law, are necessary to interpret the law, or are made necessary by compelling public need, such as material failures of private markets to protect or improve the health and safety of the public, the environment, or the well-being of the American people. In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages, distributive impacts; and equity), unless a

statute requires another regulatory approach. To ensure that the agencies' regulatory programs are consistent with this philosophy, agencies should adhere to the following principles, to the extent permitted by law and where applicable:

(1) Each agency shall identify the problem that it intends to address (including, where applicable, the failures of private markets or public institutions that warrant new agency action) as well as assess the significance of that problem.

(2) Each agency shall examine whether existing regulations (or other law) have created, or contributed to, the problem that a new regulation is intended to correct and whether those regulations (or other law) should be modified to achieve the intended goal of regulation more effectively.

(3) Each agency shall identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.

(4) In setting regulatory priorities, each agency shall consider, to the extent reasonable, the degree and nature of the risks posed by various substances or activities within its jurisdiction.

(5) When an agency determines that a regulation is the best available method of achieving the regulatory objective, it shall design its regulations in the most cost-effective manner to achieve the regulatory objective. In doing so, each agency shall consider incentives for innovation, consistency, predictability, the costs of enforcement and compliance (to the government, regulated entities, and the public), flexibility, distributive impacts, and equity.

(6) Each agency shall assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.

(7) Each agency shall base its decisions on the best reasonably obtainable scientific, technical, economic, and other information concerning the need for, and consequences of, the intended regulation.

(8) Each agency shall identify and assess alternative forms of regulation and shall, to the extent feasible, specify performance objectives, rather than the behavior or manner of compliance that regulated entities must adopt.

(9) Wherever feasible, agencies shall seek views of appropriate State, local, and tribal officials before imposing regulatory requirements that might significantly or uniquely affect those governmental entities. Each agency shall assess the effects of Federal regulations on State, local, and tribal governments, including specifically the availability of resources to carry out those mandates, and seek to minimize those burdens that uniquely or significantly affect such governmental entities, consistent with achieving regulatory objectives. In addition, as appropriate, agencies shall seek to harmonize Federal regulatory actions with related State, local, and tribal regulatory and other governmental functions.

(10) Each agency shall avoid regulations that are inconsistent, incompatible, or duplicative with its other regulations or those of other Federal agencies.

(11) Each agency shall tailor its regulations to impose the least burden on society, including individuals, businesses of differing sizes, and other entities (including small communities and governmental entities), consistent with obtaining the regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations.

(12) Each agency shall draft its regulations to be simple and easy to understand, with the goal of minimizing the potential for uncertainty and litigation arising from such uncertainty.

IV.1. Key Elements of the Regulatory Impact Review
The key elements of the Regulatory Impact Review (RIR) include --

- A description of the management objectives;
- A description of the fishery;
- A statement of the problem;
- A description of each selected alternative¹, including the "no action" alternative; and
- An economic analysis of the expected effects of each selected alternative relative to the baseline².

If these elements are already included in another section of the document, the appropriate section must be referred to under the RIR.

If a proposed action is determined to be significant under E.O. 12866, the analysis undergoes further scrutiny by the Office of Management and Budget (OMB) to ensure that it meets the requirements of E.O. 12866. A "significant regulatory action" means any regulatory action that is likely to result in a rule that may --

- Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the

¹ Throughout this document, the term "selected alternatives" refers to the alternatives a Council or NMFS determines will be analyzed in the RIR.

² The baseline is what is likely to occur in the absence of the proposed action; i.e., the status quo.

principles set forth in the Executive Order.

RIR "Objectives" Section. The management objectives should be discussed or referred to so that they can be used as criteria in the evaluation of the potential success or failure of alternative management measures.

Fishery management objectives must often take into account the requirements of multiple laws and mandates, such as the Magnuson-Stevens Act, E.O. 12866, the RFA, NEPA, UMRA, ESA, and MMPA. These laws and mandates should be referred to as appropriate. A summary of the requirements of these other applicable laws is included in Appendix A.

RIR "Description" Section. The description of the fishery should include a description of how the fishery is conducted, the utilization pattern, trends, observed deviations, and the current status. This description should provide managers with insight into who is fishing, when and where fishing occurs, what species are targeted and caught, the numbers and sizes of businesses involved in the fishery and supporting activities, and relationship of various segments of the affected industry.

RIR "Problem Statement" Section. The problem statement should identify the problem that it intends to address (including, where applicable, the failures of private markets or public institutions that warrant new action by the agency) as well as assess the significance of that problem. It should also examine whether existing regulations (or other law) have created, or contributed to, the problem that a new regulation intends to correct and whether those regulations (or other law) should be modified to achieve more effectively the intended goal of the new regulation.

RIR "Alternatives" Section. The Council or NMFS, not the analyst, is required to ensure that a range of feasible alternatives is included in the regulatory document. Although no minimum number of alternatives must be analyzed, the Council or NMFS should consider the "no action" alternative and the most significant other alternatives. The "no action" alternative should be the basis of comparison for other alternatives. However, the "no action" alternative does not necessarily mean a continuation of the present situation, but instead is the most likely scenario for the future in the absence of other alternatives.

Sometimes, alternatives are eliminated from further consideration early in the regulatory process. Examples include alternatives that are determined to be infeasible for various reasons. To enhance the administrative record, these eliminated

alternatives should be included in an appendix to the final document with a brief explanation of why they were eliminated from further consideration.

Each selected alternative should be described completely. Information should be presented in detail on the measures to be imposed, the process of implementing the measures, and the timing for implementation.

IV.2. Analysis of Alternatives

The objective of the analysis is to describe clearly and concisely the economic effects of the various alternatives. This will enable the agency to determine the regulatory alternative that maximizes net benefits to the nation, including potential economic, environmental, public health and safety, and other advantages, distributive impacts, and equity. Economic analysis can provide a quantitative or qualitative estimate of changes in net benefits expressed in monetary terms. Economic analysis can also provide the basis for describing the distributive impacts of regulatory actions. For distributive analyses, characterization of the magnitude and the direction of change in the distribution of benefits and costs of regulatory actions are of principal concern. If substantial differences in distributive impacts among the selected alternatives exist, the analysis can provide an estimate of the differences in net economic benefits among the selected alternatives, as well as an estimate of the distributional differences among those alternatives.

As a basis for estimating the effects of the management measures, the analyst should compare, in a straightforward manner, how the fishery and its various components would operate under each selected alternative. The cumulative impact of each selected alternative within a management measure should be analyzed to the extent practicable. The analyst should also consider each element of a proposed measure separately when a selected alternative contains a number of distinct measures. For example, if a Council proposes three separate alternatives for a fishery that each includes minimum fish size, possession limit / trip limit, and closed season, the individual and combined effects of each management measure should be analyzed by alternative. The components of the analysis are described below.

IV.3. Identification of Expected Effects

The types and direction of expected effects on the living marine resources, their habitats, and those who benefit from these resources should be discussed. The types of effects to consider include the following:

- Changes in net benefits within a benefit-cost framework.

- Changes in benefits and costs of groups of individuals, businesses of differing sizes, and other entities (including small communities and governmental entities).
- Changes in income and employment in fishing communities.
- Cumulative impacts of regulations.
- Changes in other social concerns.

Such effects are the product of regulatory action-induced changes to the following:

- The goods and services that are available from the use and existence of living marine resources and the benefits they provide.
- The factors of production (e.g., capital, labor, and living marine resources) used to provide those goods and services, the cost of and returns from using the factors of production, and the payments made for their use.

IV.3.a. Changes in Net Benefits within a Benefit-Cost Framework

Benefit-cost analysis is conducted to evaluate the net social benefit arising from changes in consumer and producer surpluses that are expected to occur upon implementation of a regulatory action. The proper comparison is 'with the action' to 'without the action' rather than to 'before and after the action,' since certain changes may occur even without action and should not be attributed to the regulation. In general, benefits are measured by willingness to pay (WTP), and costs, by opportunity costs. Opportunity costs reflect the foregone benefits from the use of a resource in one activity as compared to the best alternative use³.

Benefits may accrue as surpluses to consumers or producers. Total Consumer Surplus (CS) is the difference between the amounts consumers are willing to pay for products or services and the amounts they actually pay. Thus CS represents net benefits to consumers. Net benefit to producers is producer surplus (PS). Total PS is the difference between the amounts producers actually

³ Alternatively, willingness to accept (WTA) may be used instead of WTP. The choice of benefit measure will depend upon the policy context of the regulatory change. WTP will be appropriate when measuring benefits for increment in market or non-market goods. Although, under certain circumstances, WTP and WTA could yield theoretically equivalent surplus measures, WTA may be preferable when valuing decrements in market or non-market goods.

receive for providing goods and services and the economic cost producers bear to do so. Economic costs are measured by the opportunity cost of all resources including the raw materials, physical and human capital used in the process of supplying these goods and services to consumers.

Benefits and costs may accrue to consumers or producers not only through their own direct activity, but also through changes in public expenditures or receipts that may redirect resources for use elsewhere in the economy. From a social perspective, many public expenditures represent transfer payments in that they do not require consumption of any additional resources. However, the public provides a variety of services that do have value. For example, enforcement of fishery regulations provides economic benefits in that enforcement enters into compliance behavior and that greater compliance provides greater assurance that the regulation will achieve its intended purpose. From a budgetary perspective, the cost of enforcement is equivalent to the total public expenditure devoted to enforcement. The economic cost of enforcement is measured by the opportunity cost of devoting resources to enforcement vis à vis some other public or private use and/or by the opportunity cost of diverting enforcement resources from one fishery to another⁴.

Benefits and costs are measured from the perspective of the nation rather than from that of private firms or individuals. Benefits enjoyed by other nations are not included, although tax payments by foreign owners and export revenues are benefits to the nation. Because of the national accounting stance, opportunity costs (whenever possible) rather than accounting costs are employed. Forgone interest, depreciation, some taxes, and subsidies are considered transfer payments, from the perspective of society, rather than expenditures of real resources and, hence, are considered private rather than economic costs. Secondary costs and benefits are generally excluded when opportunity cost or WTP is used to measure costs and benefits, since their inclusion would be double counting. For example, the benefits of a stock-rebuilding program may be reflected in increased values of participating vessels. Provided economic costs and benefits are measured as opportunity costs and WTP, respectively, the capital gains associated with increased vessel value would already be reflected in the benefit-cost analysis. If the analyst were to also add the increased value of capital assets, this would count the program benefits twice.

If there are no market distortions and all goods are traded

⁴ For information on enforcement costs, allocating enforcement resources, etc., see chapter 6 of Jon G. Sutinen (forthcoming), Conservation through Compliance: the design and implementation of compliance for fisheries management, Ashgate Publishing.

in markets, CS and PS can, at least theoretically, be measured or approximated by market demand and supply curves. PS can alternatively be calculated from revenue and cost data using opportunity rather than accounting costs.

When there is market failure or relevant market distortions, such as those that result from non-competitive markets, market supply and demand curves and market prices are biased. The extent of the bias depends on many factors. It will often not be possible to measure the effect of these distortions, but their possible existence and direction of bias should be noted where applicable. A sensitivity analysis can help shed light on the importance of the bias.

Not all goods and services important to consumers are exchanged through markets and receive market prices. These non-market goods include environmental amenities, other public goods, and recreational experiences. These non-market goods can be categorized by whether they provide consumptive or non-consumptive use value (sometimes called direct and indirect use value) or non-use value. Non-use value includes existence value, which is the WTP for the existence of a good or service over and above the WTP for potential or actual use of a good or service. Including these non-market goods is particularly important when considering habitat, ecosystem, and many marine mammal issues. Wherever practicable, these non-market goods should be given monetary values as a consumer's WTP using non-market valuation techniques such as travel cost, stated preference, and hedonic methods.

For economic analysis of regulatory actions, changes in net benefits are measured by the difference in the present value of the discounted stream of net benefits of regulatory action as compared to the status quo. In this context, a positive result means that the net present value of the regulatory action exceeds that of the status quo. Conversely, a negative result indicates that the status quo yields higher net present value than the regulatory action. Given that the primary purpose for the analysis is an assessment of how net benefits may be expected to change relative to the status quo, the analyst may choose to focus only on those economic costs and benefits that are expected to change. If, for example, fixed costs for fishing firms are expected to be unaffected, any change in costs may be fully captured by changes in operating costs thereby obviating the need to estimate fixed costs. Similarly, if retail market supplies are not expected to change due to ready availability of imports, a given regulatory action may have little or no impact on consumers. In this instance, changes in net benefits will be fully captured by factors other than consumer surplus.

In instances where benefits are considered equivalent regardless of the regulatory choice and/or where a specific

action is mandated by statute or some other binding ruling, a cost-effectiveness analysis may be used to make comparisons across alternatives. A cost-effectiveness analysis does not seek to determine whether or not regulatory action is warranted. Rather, a cost-effectiveness analysis seeks to find the regulatory design that minimizes costs. Typically, a cost-effectiveness analysis cannot be used to rank regulatory alternatives as compared to the status quo.

IV.3.b. Changes in the Distribution of Benefits and Costs

Changes in the distribution of benefits and costs reflect changes in the benefits and costs of groups of individuals, businesses of differing sizes, and other entities (including small communities and governmental entities). For businesses, the change in accounting profit can be used as a measure of the change in net benefits. Profit is a widely used term but is generally understood to be the result of subtracting costs from gross receipts over a period of time. Defined in this manner, calculation of profit will be affected by differences in both cost-accounting conventions and accounting conventions applied to gross receipts. Similarly, the change in net benefits to governmental entities can be measured in terms of changes in revenues and costs using normal accounting practices.

The change in net benefits to consumers can be measured in terms of the change in consumer surplus, just as it would be measured in a benefit-cost analysis.

IV.3.c. Changes in Income and Employment

Regional economic models, including input-output models, can be used to estimate the regional income and employment effects of alternative regulatory actions. These models provide measures of the changes in economic activity by region, not measures of net benefits. In the absence of these models, which can take substantial time and effort to develop and update, base sector models can be used or qualitative assessments can be made.

IV.3.d. Cumulative Impact of Regulations

Imposition of more restrictive or multiple regulations to control symptoms of the common property externality may result in ever-increasing costs of management borne by fishermen and other regulated entities. Although the marginal economic effect of each regulatory action may be small, the cumulative impacts of several such actions over time may be large. Accounting for cumulative impacts may be of particular concern when multiple framework adjustments are made between full amendments to an FMP. Analyses that focus on the limited effects of some management measures could miss important economic effects (both positive and negative) of the management program as a whole.

Accounting for cumulative impacts is difficult conceptually, and much more difficult to analyze. One of the difficulties is determining the benchmark to use in assessing the cumulative impacts. Conceptual or empirical analyses may need to explicitly account for the management history in a fishery by including previous regulatory instruments in the analyses. By capturing these effects within the analytical framework, cumulative impacts can be made explicit for fishery managers.

IV.3.e. Changes in Other Social Concerns

The changes with respect to social concerns that are not captured in the preceding categories of effects should be addressed. Such concerns may be explicitly or implicitly identified in the problem statement or they may arise during the development and review of alternative management actions.

IV.3.f. Qualitative Analysis of Expected Economic Effects

At a minimum, a qualitative analysis of the expected economic effects of each selected alternative to the status quo is required. In developing this section, the analyst first defines the baseline or "no action" condition, which provides the standard against which all other alternative actions are compared. The baseline is what is likely to occur in the absence of any of the proposed actions. Once the baseline condition is established, the incremental economic effects of each alternative relative to the baseline can be assessed. The specific economic effects to be analyzed should fall under the general areas of concern identified in Section IV.3.(a - e).

When quantifiable measures of the effects cannot be usefully estimated because of the nature of the data and other resources available for the analyses, the types and models that would be required to usefully estimate such measures should be identified.

IV.3.g. Quantitative Analysis of Expected Economic Effects

If adequate data and model are available to provide useful estimates of quantifiable measures of the expected economic effects, a quantitative analysis of the effects of the selected alternatives should be substituted for the qualitative analysis described in the previous section, when this is the appropriate option. The quantitative analysis should use generally accepted methods to provide an understanding of the economic consequences of the selected alternatives. In many cases, only a small amount of quantification will be practicable. This could include, if appropriate, presenting empirical analysis from previously published sources, focus group input, expert opinion groups, as well as the analyst's own economic analysis. Any such information should be used in accordance with applicable statutes, such as the Federal Advisory Committee Act (5 U.S.C.

App.). Good management requires that an effort be made to provide reasonably precise comparisons of the selected alternatives.

IV.4. Summary of Expected Economic Effects

E.O. 12866 defines net benefits in terms of potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity. With this very broad definition of net benefits in mind, the incremental benefits and costs of all alternatives relative to the "no action" alternative as a baseline should be summarized in the schedule. The schedule should (1) list all benefits and costs of each alternative, either monetized or non-monetized; (2) identify when the benefits and costs would occur; and (3) identify to whom the benefits and costs would accrue. All monetized benefits and costs should be in terms of the present value and should be presented as incremental changes relative to the baseline. Plausible ranges of estimates of benefits and costs should be provided where the estimate is sensitive to uncertain parameters, such as the rate of compliance, the rate of biological recovery, or other relevant variables.

IV.5. General Considerations in Developing the Analysis

IV.5.a. Forecasting

Evaluation of alternative actions should be based on the most likely conditions expected to exist in the future with and without the proposed management actions. The forecast uses analysis of conditions expected to prevail without the proposed rule. The expected conditions may well differ from the existing conditions.

Forecasts should be made for selected years over the period of the analysis (see section c below) to indicate impacts of changes in economic and other conditions. During the period of analysis, if national or regional economic conditions are expected to change significantly, the changes should be factored into the analysis, if possible. For example, in the analysis of short-term effects, such factors as resource availability, utilization, and mobility may be considered in the analytical framework.

IV.5.b. Discount Rates

The costs and benefits that result from regulations usually occur at different times. Capital investments and some costs required by regulations tend to be concentrated at the outset, whereas benefits often occur at later dates. Some method must be used to permit comparisons between costs and benefits that have different time profiles. Discounting, which transforms future benefits and costs into "present values," should be utilized

where appropriate. Direct comparisons between costs and benefits incurred at different time periods can then be made. The social discount rate used in an economic analysis may differ from the interest rate used in a private accounting analysis.

The Office of Management and Budget (OMB) has provided "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs" in Circular Number A-94 distributed by Transmittal Memorandum Number 64 (October 29, 1992). This Circular specifies certain discount rates that will be updated annually when the interest rate and inflation assumptions in the budget are changed. The goal of this circular is to promote efficient resource allocation through well-informed decision-making by the Federal Government. It provides general guidance for conducting benefit-cost and cost-effectiveness analyses. It also provides specific guidance on the discount rates to be used in evaluating Federal programs whose benefits and costs are distributed over time. Copies of the Circular may be obtained from the OMB Publications Office (202-395-7332). This information can also be obtained from the OMB web site at:

<http://www.whitehouse.gov/OMB/circulars/a094/a094.html>

Section 8.b.1. of the Circular specifies a real discount rate of 7 percent for computing net present value (NPV) when doing constant-dollar, benefit-cost analyses of proposed investments and regulations. Please note that the rates presented in Appendix C to OMB Circular No. A-94 do not apply to regulatory analysis or benefit-cost analysis of public investment. They are to be used for lease-purchase and cost-effectiveness analysis, as specified in the Circular. Refer to "Memorandum for the Heads of Departments and Agencies" of February 9, 2000 (M-00-06, 2000 Discount Rates for OMB Circular No. A-94). This memo can be obtained at:

<http://www.whitehouse.gov/OMB/memoranda/m00-06.html>

The OMB circular encourages the analyst to present sensitivity analyses using other discount rates if the use of such alternative rates can be justified. An alternative that is often used is the social rate of time preference⁵. Special approaches

⁵ The social rate of time preference reflects the discount rate at which society is indifferent between a payment now and a correspondingly larger payment in a future year. It may be lower than the average real return on investment because, as a result of taxes and other distortions, individuals do not receive the full return on their investments. Most analysts use the average real rate on long-term Treasury bonds to represent the social rate of time preference. For the

may also be appropriate when comparing benefits and costs across generations. One approach is to follow the discounting method discussed above, but to address the inter-generational equity and fairness issues explicitly rather than by modifying the discount rate.

IV.5.c. Period of Analysis

A general guideline for the period of analysis cannot be established for all fishery management actions since there is such a wide diversity of possible situations and measures to be dealt with. The analyst should determine the appropriate period over which the analysis will be conducted, but, in all cases, he or she should provide an explanation of the specific period chosen that conforms to accepted benefit-cost analysis practices. For example, the period of analysis could reflect the time it takes for the fishery to move from its initial equilibrium along the expansion path to the final equilibrium point (including the time needed for the present value of costs and benefits to approximate zero) due to the adoption of the proposed regulation, holding all other influence constant. In some cases, the lack of necessary data will limit the period of analysis. However, a reasonable attempt should be made to conduct the analysis over a sufficient period of time to allow a consideration of all expected effects. Choosing a period of analysis that is too short may bias the analysis toward costs, where costs are incurred in the short-term and benefits are realized later. The period of the analysis should be the same for each alternative, including the "no action" alternative (i.e., all alternatives should be analyzed over the time frame that is appropriate for the alternative having the longest stream of costs and/or benefits).

IV.5.d. Risk and Uncertainty

The results of economic impact analyses should be examined to evaluate the uncertainty inherent in the data or in various assumptions. Areas of sensitivity should be described clearly so that decisions can be made with knowledge of the degree of reliability of the information presented. Situations of risk are defined as those in which the potential outcomes can be described in reasonably well-known distributions of benefits and costs. Situations of uncertainty are defined as those in which potential outcomes cannot be described with known probabilities. Reducing risk and uncertainty may involve increased costs or loss of benefits. The benefits and costs of reducing risk and uncertainty should be considered in the analytical and decision-

last 15 years, this rate has been in the range of 3 to 5 percent.

making process.

Three fundamental types of analyses are possible. First, areas of risk and uncertainty can be qualitatively described. These qualitative descriptions are especially appropriate when reliable economic data or analytical models are unavailable. Second, a formal sensitivity analysis can be conducted in which important parameters are systematically varied and the impact on expected economic effects evaluated. Sensitivity analysis most frequently varies key variables one at a time. Third, a formal risk analysis can be conducted through Monte Carlo simulation. A formal risk analysis provides expected values and distributions for a given probability distribution. A key consideration is the possible correlation among variables and the appropriate level of aggregation of variables. The use of conservative or best estimates or the use of a risk premium added to the social discount rate is not recommended.

IV.6. Information Requirements

The regulatory analysis should indicate how the important performance characteristics of the fishery will likely change over the short- and long-run, if --

- There are no changes in the regulations; and
- The same variables change with each selected alternative.

Given the analytical requirements of the Magnuson-Stevens Act and other applicable laws, an economic analysis related to the performance of the relevant commercial and recreational users, non-consumptive users, processing sector, and retail or other market sectors is needed for the same period of time as the biological estimates. At a minimum, a qualitative analysis should discuss the relative magnitude of changes in performance. The qualitative components of the analysis should be replaced with quantitative components when this is the appropriate option. Information should be tailored to the sector(s) being analyzed, including commercial fishing and processing, recreational and subsistence fishing, and non-consumptive uses of fishery resources. Examples of the information that should be provided in an RIR, if relevant to the analysis, may include the following:

- Expected levels or changes in participation (number of fishing vessels and/or anglers, etc.) and activity (number of fishing trips, days at sea, etc.).
- Expected levels or changes in harvests (commercial, recreational, and subsistence) and their distribution by sector.
- Expected levels or changes in non-consumptive availability of the resource.
- Expected changes in prices (commercial ex-vessel prices and

- recreational access prices (e.g., charter fees)).
- Expected changes in harvesting costs (fixed and variable costs, including capital and labor costs), as well as equivalent costs for non-consumptive use activities.
- Expected levels and costs of processing.
- Expected changes in benefits or costs incurred by specific user groups, including effects on small entities.
- Expected effects on employment.
- Expected effects on profits, competitive position, productivity or efficiency of individual fishermen, user groups, or fishing communities.
- Expected effects on the reporting burden.
- Expected impacts on recreational and subsistence use, including changes in participation and catch rates and, to the extent practicable, their consumer surplus; for subsistence fishing, food and cultural availability.
- Expected management and implementation costs attributable to the action, including enforcement costs.
- Expected effects on non-consumptive use values.
- Expected effects on fishing capacity.

The above factors should be addressed in sufficient detail to enable the incremental economic effects associated with each alternative to be determined.

IV.7. Analytical Procedures

In general, the complexity of the analytical framework that should be used depends on the scope and magnitude of the problem, the number of regulatory alternatives, and the ability to measure the economic effects.

Generally accepted methodologies should be used in determining the economic effects of each selected alternative. Specific methodologies for examining the economic effects of alternative management actions are not detailed here because such methodologies are well documented elsewhere (see bibliographic references and suggested readings for literature on methodologies).

IV.8. Analysis of Framework Management Measures

The purpose of a framework measure is to "build in" flexibility to provide the opportunity to adjust to problems caused by the natural variability of a fishery and/or the lack of complete information early in the decision-making process.

NMFS Operational Guidelines for the Fishery Management Plan Process require that every framework measure be analyzed and that the analysis be available to the public for comment at some time prior to implementation. The analysis may be provided at the same time the framework is added to the FMP, or it may be

provided subsequently when the framework action is actually taken. The extent of analysis, notification, and comment required will depend on the specificity and analysis provided when the framework was established.

The critical decision points where flexibility is required must be identified in framework measures. Also, the exact manner in which the framework will allow decisions to be made at those points must be described. It is necessary to show how this framework and its decision process will affect expected or average values of the important variables under various management alternatives.

When no further analysis is provided for proposed measures under a framework action, the analyst should clearly show that the current situation in the fishery has not changed from the time the analyses were done and that the specific regulatory action to be taken under the framework was analyzed adequately.

V. REGULATORY FLEXIBILITY ACT PROCESS AND ANALYSIS

The purpose of the RFA (5 U.S.C. 601 et seq.) is to establish a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration.

With the exception discussed below, the RFA requires agencies to conduct an Initial Regulatory Flexibility Analysis (IRFA) and Final Regulatory Flexibility Analysis (FRFA) for each proposed and final rule, respectively. The IRFA and FRFA are designed to assess the impacts various regulatory alternatives would have on small entities, including small businesses, and to determine ways to minimize those impacts. Under the RFA, an agency does not need to conduct an IRFA or FRFA if a certification can be made that the proposed rule, if adopted, will not have a significant economic impact on a substantial number of small entities.

It should be emphasized that the RFA does not require that the alternative with the least cost or with the least impact on small entities be selected as the preferred alternative. The RFA does not contain any decision criteria; instead the purpose of the RFA is to inform the agency, as well as the public, of the expected economic impacts of the various alternatives contained in the FMP or amendment (including framework management measures

and other regulatory actions) and to ensure that the agency considers alternatives that minimize the expected impacts while meeting the goals and objectives of the FMP and applicable statutes. Note that, when an FRFA is prepared, it must include a statement of the factual, policy, and legal reasons for selecting the alternative adopted and explain why each of the other significant alternatives that minimize the expected economic impacts on small entities was rejected.

A good regulatory flexibility analysis will ensure that --

- Reasonable alternatives from among which to select a proposal are identified.
- The proposal selected reflects a wise choice from among reasonable alternatives.
- Managers have fair warning whether their proposal will generate loud complaint.
- The proposal competes well against other social goals, regardless of legislative mandates, in light of other administration priorities.
- The proposal will move rapidly through the regulatory process at OMB and SBA's Office of Advocacy.
- The proposal is likely to withstand legal challenges.

There is some uncertainty as to whether an RFAA must address the impacts of a proposed rule on only small entities subject to the regulation (i.e., small entities to which the rule will apply) or on all small entities that are affected by the regulation. The uncertainty results from the use of such language as "small entities to which the proposed rule will apply," "small entities that will be subject to the regulation," "the impact of the proposed rule on small entities," and "a significant economic impact on a substantial number of small entities." NMFS' interpretation places an outer limit on the number of entities that the analysis should consider as only those to which the rule will apply. In addition, this guidance provides for examining subsets of entities to which the rule will apply if the rule is likely to affect some of those entities differently than others. (See section V.1. "Steps for Fulfilling the RFA Requirements" for guidance on tiering.)

The importance of this ambiguity is decreased substantially, if not eliminated, by the fact that E.O. 12866 requires analysis of the burden of regulations on small entities. This requirement is contained in the eleventh principle. Thus, if the economic impact on all small entities that would be affected by the

proposed rule is analyzed in the RIR as required by E.O. 12866, the RFAA need only analyze the economic impact on small entities to which the proposed rule will apply.

V.1. Steps for Fulfilling the RFA Requirements

The steps for conducting the RFAA may be done in a number of ways, with responsibilities shared among the Councils, NMFS' Regions and Centers, and Headquarter's offices, but NMFS retains the ultimate responsibility to see that an adequate RFAA exists.

Part 121 of Title 13, Code of Federal Regulations (CFR), sets forth, by Standard Industrial Code (SIC) categories, the maximum number of employees or maximum average annual receipts a business may have to be considered a small entity. Provision is made for an agency to develop industry-specific definitions. Under this provision, NMFS (with the approval of the Office of Advocacy at the U.S. Small Business Administration) established criteria for businesses in the fishery sector to qualify as small entities. The Office of Advocacy at the U.S. Small Business Administration Size Classification by SIC code is available on the following web site: www.sba.gov/regulations/siccodes/

The Regulatory Flexibility Act recognizes and defines three kinds of small entities: small businesses, small organizations, and small governmental jurisdictions. The established size standards are as follows:

Any fish-harvesting or hatchery business is a small business if it is independently owned and operated and not dominant in its field of operation (including its affiliates) and if it has annual receipts not in excess of \$3.0 million.

For related industries involved in canned and cured fish and seafood or prepared fish or frozen fish and seafoods, a small business is one that employs 500 employees or fewer.

For the wholesale industry, a small business is one that employs 100 or fewer.

For marinas and charter/party boats, a small business is one with annual receipts not in excess of \$5.0 million.

A small organization is any not-for-profit enterprise that is independently owned and operated and not dominant in its field.

A small government jurisdiction is any government or district with a population of less than 50,000.

Although, at a minimum, the RFA requires a bifurcation

between small and large entities, the analyst may choose to create classes or tiers from among the identified universe of small entities. The creation of separate classes of small entities may be appropriate when a regulatory action is expected to have differential impacts on firms based on their sizes or other characteristics. For example, smaller vessels may be less able to adapt to a regulatory action than larger vessels due to their limited range. At a minimum, the analyst is advised to distinguish between small entities that, while subject to regulation, may or may not be affected because they may not be an active fishery participant.

V.1.a. Certification Process

The Regulatory Flexibility Act allows Federal agencies to decide whether to conduct a full RFAA or to certify that the proposed and/or final rule would not have a "significant economic impact on a substantial number of small entities." This determination can be made at either the proposed and/or final rule stage. If the agency can certify, it will avoid doing an IRFA, an FRFA, a "Small Entity Compliance Guide" (Guide), and a periodic review of such rules.

The information from the PREE or from other relevant economic analysis will indicate whether there is or is not a factual basis to certify that the preferred alternative would not have a "significant economic impact on a substantial number of small entities." When the first outcome is obtained, the agency has the option of certifying.

The decision on whether or not to attempt certification or to apply certification criteria should be made after the final decision on the preferred alternative. This will ensure that this process is done only once for a particular regulatory action.

The NMFS Regional Administrator/Office Director, using analyses and rationale provided by the Council or NMFS, prepares a memorandum from the Chief Counsel for Regulation (CC/Regs) of the Department of Commerce to the Chief Counsel for Advocacy of the Office of Advocacy at the U.S. Small Business Administration (SBA) certifying and setting forth the factual basis for the certification. Generally, the body of the letter is quoted in the classification section of the proposed rulemaking. The CC/Regs will sign and transmit the certification to SBA at the time the notice of proposed rulemaking or final rulemaking is published in the Federal Register, along with a statement providing the factual basis for such certification.

"Boilerplate" notice language should not be used by the agency in its statement on the factual basis for a certification or in the equally important ancillary requests for public comment. If the agency has conducted the appropriate analysis, it can offer clear, concise, declarative statements that address each of the six points below and reflect the specifics of the proposed rule.

The Office of Advocacy at the SBA recommends that the certification statement include the following:

1. A statement of basis and purpose of the rule. This should include the statutory basis for the regulation, and the objectives of the rule including a brief description of the context.
2. A description and estimate of the number of small

entities to which the rule applies. This should describe how the universe of regulated entities was determined (and segmented) and details on the relevant economic and functional characteristics of those entities. This element should provide clear information on the range and scope of the regulation and the analysis which supports the certification.

3. An estimate of economic impacts on small entities, by entity size and industry. This should include the rationale for the certification decision, based on the criteria specified in the next element, as well as a summary of the basic analysis supporting that determination. The emphasis is on financial analysis rather than economic (opportunity cost) analysis, per se, although, in some circumstances, the two may differ slightly. The analysis should be presented in a manner which enhances public review.
4. An explanation of the criteria used to evaluate whether the rule would impose "significant economic impacts". These guidelines suggest two criteria to consider in determining the significance of regulatory impacts, namely, disproportionality and profitability⁶. These criteria relate to the basic purpose of the RFA, i.e., to consider the effect of regulations on small businesses and other small entities, recognizing that regulations are frequently unable to provide short-term cash reserves to finance operations through several months or years until their positive effects start paying off. If either criterion is met for a substantial number of small entities, the rule should not be certified.

Disproportionality. Do the regulations place a substantial number of small entities at a significant competitive disadvantage to large entities? If the answer is "Yes," the rule should not be certified. Whenever a disproportional effect on profits, costs, or net revenues is expected to occur for a substantial number of small entities, the test is adjudged to be met, and the rule should not be certified. This criterion compares the effect of the regulatory

⁶ The concept of profitability may not be appropriate for a non-profit small organization or a small government jurisdiction. For these groups, disproportionality may be the appropriate standard.

action between small and large entities (using the SBA approved size definition of "small" entity), not the difference between segments of small entities⁷.

However, if an appreciable segment of small entities is disproportionately affected relative to large entities, even if the average small entity is not affected, the test would be adjudged to be met, and the rule should not be certified.

Profitability. Does the regulation significantly reduce profit for a substantial number of small entities? If the answer is "Yes," the rule should not be certified.

The thrust of the analysis should be short- and medium-term in nature. While 1 year may be considered short-term, the analyst may consider shorter periods, e.g., 6 months for which the fishery is open, or longer periods, e.g., 2 years after which the regulation sunsets. Whichever period is selected, the analyst must provide a rationale for that choice as well as a discussion of how the findings may be affected by the choice.

Profit is a widely used term and is generally understood to be the result of subtracting costs from gross receipts over a period of time. Defined in this manner, calculation of profit will be affected by differences in both cost accounting conventions and accounting conventions applied to gross receipts. In general, the analysis should focus on the ability of the firm to meet both short-term (operating costs plus payments on other short-term obligations) and long-term debt (principal and interest payments on plant and equipment) obligations using generally accepted accounting practices (GAAP) for the regulated industry. The selected accounting practices will depend upon available data. Whichever accounting rules are selected, the analyst must describe the assumptions and should discuss how the findings may be affected by these assumptions.

Ultimately, the question the RFA analysis needs to answer is whether in the short- and medium-term, the costs (or reduction in revenues) imposed by the regulation can be absorbed by the firm (due to higher than average profitability) or passed on to its customers. If these costs (or reductions in revenues)

⁷ Impacts within segments of small entities can be evaluated by the second criterion.

cannot be absorbed so that either profits are reduced significantly or the solvency (ability to meet long term debt payments) of a substantial number of small entities is clearly threatened, then the impact of the rule is significant and the agency should not certify.

5. An explanation of the criteria used to evaluate whether the rule would impose impacts on "a substantial number" of small entities.

The term "substantial number" has no specific statutory definition and the criterion does not lend itself to objective standards applicable across all regulatory actions. Rather, "substantial number" depends upon the context of the action, the problem to be addressed, and the structure of the regulated industry. The SBA casts "substantial" within the context of "more than just a few" or *De Minimis* ("too few to care about") criteria⁸. In some cases consideration of "substantial number" may go beyond merely counting the number of regulated small entities that are impacted significantly. A fishery may have a large number of participants, but only a few of them may account for the majority of landings. In such cases, a substantial number of small entities may be adjudged to be significantly impacted, even though there may be a large number of insignificantly impacted small entities.

Generally, a rule is determined to affect a substantial number of entities if it impacts more than just a few small entities. In a borderline case, the rule's effect on the structure of the regulated industry or the controversiality of the rule might tip the balance in favor of determining that a substantial number of entities would be affected.

6. A description of, and an explanation of the basis for, assumptions used. This should describe the data sources and analytical methods used in the analyses, variability, and uncertainty in the cost and revenue estimates, explain the assumptions used, and indicate the extent to which the results were affected by those assumptions.

V.1.b. Initial Regulatory Flexibility Analysis

⁸ See page 18, U. S. Small Business Administration, Office of Advocacy, "The Regulatory Flexibility Act: An Implementation Guide for Federal Agencies," 1998.

In addition to the economic impact analysis, Section 603 (b) of the RFA identifies the elements that should be included in the IRFA. These are as follows:

A description of the reasons why action by the agency is being considered.

A succinct statement of the objectives of, and legal basis for, the proposed rule.

A description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply.

A description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record.

An identification, to the extent practicable, of all relevant Federal rules, which may duplicate, overlap, or conflict with the proposed rule.

Each IRFA shall also contain a description of any significant⁹ alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities. Consistent with the stated objectives of the applicable statutes, the analysis shall discuss significant alternatives such as --

The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities.

The clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities.

The use of performance rather than design standards.

An exemption from coverage of the rule, or any part thereof, for such small entities.

⁹ Note that the selected alternatives are those that the Councils or NMFS consider to be significant alternatives.

The IRFA should estimate the costs associated with each of the selected alternatives and identify the classes of small entities that will be subjected to the costs. The relevant costs include both direct compliance costs, reporting, record-keeping, and other administrative costs. Note that compliance costs are broadly defined to include the value of forgone fishing opportunities, increased operating costs, and costs associated with higher levels of debt servicing. The IRFA should compare the costs of compliance for small and large entities to determine whether any small entities are disproportionately affected. If all entities in the industry are small entities, the costs imposed on the typical, representative, median, or average entity in a particular segment of the industry should be analyzed. The resulting effects of business closures on production and employment in each segment should be estimated. The effects on participants in other fisheries in terms of disruption of fishing practices and dislocation from customary fishing locations should be considered in the RIR, if those entities are not directly regulated by the proposed action. Also, the effects on related wholesale and service industries should be considered in the RIR if those entities are not directly regulated by the proposed action. This should be done for each selected alternative to the extent practicable.

The discussions in the following two paragraphs refer to process rather than analysis. Since the regulatory development process varies by region, in some cases the analyst would not be involved in the process described below. In cases in which the analyst is a Council staff member, he or she would likely be involved in this process.

As indicated above, the RFA requires consideration of alternatives that accomplish the stated objectives of the applicable statutes and that minimize any significant economic impacts on small entities. The IRFA should identify any significant alternatives that would minimize economic impacts on small entities, if such alternatives exist. The RFA requires that the alternatives be part of the IRFA to ensure that the public will have adequate opportunity to comment on them and to suggest other alternatives. If there is an alternative with less of an impact on small entities that meets the stated objectives, the IRFA should explain why the preferred alternative was selected over the alternative with lower impact.

A rationale should be provided to explain any unavoidable adverse effects on small entities that are necessary to achieve the objectives. For documents that are prepared by the Councils, if a Council fails to fully comply with the RFA requirements for an IRFA, NMFS may elect to return a Council's recommendation as

incomplete or may supplement a Council's IRFA submission by adding language to the preamble of the proposed rule. In such an instance, the IRFA will be considered to consist of a Council's submission as supplemented by the preamble.

V.1.c. The Final Regulatory Flexibility Analysis

An agency must prepare a Final Regulatory Flexibility Analysis (FRFA) if it has published in the Federal Register a general notice of proposed rulemaking, unless the agency certifies that the rule, if adopted, will not have a significant economic impact on a substantial number of small entities. NMFS prepares the FRFA at the end of the public comment period. The FRFA or a summary should normally be published in the Federal Register with the final rule.

Section 604(a) of the RFA identifies the elements that should be in the FRFA in addition to the analysis of impacts:

- A succinct statement of the need for, and objectives of, the rule.
- A summary of the significant issues raised by the public comments in response to the IRFA, a summary of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments.
- A description and an estimate of the number of small entities to which the rule will apply or an explanation why no such estimate is available.
- A description of the projected reporting, record-keeping, and other compliance requirements of the rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for the preparation of the report or record.
- A description of the steps the agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and the reason that each one of the other significant alternatives to the rule considered by the agency was rejected.

The FRFA may be based on the IRFA but should reflect new

data developed during the comment period and comply with the above requirements. Often, in order to comply, the FRFA will consist of the IRFA and of portions of the preamble to the final rule.

The remaining sections deal with process rather than analysis. Since the regulatory development process varies by region, in some cases the analyst would not be involved in the process described in the remaining sections. In other cases where the analyst is a council staff member, he or she would likely be involved in this process.

V.2. Small Entities Compliance Guide

For each final rule or group of related rules for which an agency is required to publish an FRFA, the agency is now required to publish one or more guides to assist small entities in complying with the rule. A "Small Entity Compliance Guide" (Guide) must explain the actions a small entity is required to take to comply with the rule or group of rules. The Guide is to be written using sufficiently plain language so that it can be understood by regulated small entities. An agency's Guide is not subject to judicial review. However, in any civil or administrative enforcement action against a small entity for a regulatory violation, the content of the Guide may be considered as evidence of the reasonableness or appropriateness of any proposed fines, penalties, or damages.

V.3. Waiving or Delaying the Preparation of an RFAA

The requirement to prepare some or all of an IRFA may be waived or delayed by an agency head when an emergency makes compliance impracticable. To effectuate such a delay or waiver, a notice must be published in the Federal Register, no later than the date of publication of the final rule. That publication must include a written finding, with reasons therefore, that the final rule is being promulgated in response to an emergency that makes timely compliance with the requirements to prepare an IRFA impracticable.

An agency head may delay completion of an FRFA up to 180 days after the final rule is published in the Federal Register, by publishing in the Federal Register, no later than the date of publication of the final rule, a written finding, with reasons that the final rule is being promulgated in response to an emergency that makes compliance with the requirements to prepare an FRFA impracticable. Note that preparation of an FRFA may not be waived. The rule will lapse and have no effect if an FRFA is not prepared within this time period. Further, the rule may not be re-promulgated until an FRFA has been prepared.

V.4. Relationship of the Regulatory Flexibility Act to Other Applicable Law

The RFA requires that the agency identify and consider alternatives that minimize the impacts of a regulation on small entities subject to the regulation, but it does not require that the agency select any particular alternative, such as the alternative with the least cost or with the least impact on small entities. However, if there is an alternative (other than the preferred) with less of an impact on small entities, rationale must be provided for selecting the preferred over that alternative. Section 606 of the RFA (5 U.S.C 606) states that the requirements to prepare an IRFA and an FRFA do not alter standards otherwise applicable by law to agency action. Regardless of the requirement to conduct an RFAA (or, for that matter, an RIR), the regulatory action taken must be consistent with the Magnuson-Stevens Act and with other applicable law.

V.5. Involvement of Small Entities in the Rulemaking

The RFA mandates that, if a rule will have a significant economic impact on small entities, the agency involved will take steps to assure that small entities will have an opportunity to participate in the rulemaking. Possible steps suggested by the RFA include the following:

- Providing a statement accompanying an advance notice of rulemaking that the proposed rule might have a significant economic impact on a substantial number of small entities.
- Publishing a notice in publications likely to be obtained by small entities.
- Directly notifying affected parties, including representatives of participants in adjacent areas.
- Conducting open conferences or public hearings, intending to include representatives of fisheries that might be affected by possible regulatory changes. The chances of public acceptance of fishery regulations are improved by involving all concerned/affected groups in all phases of the process, including data collection.

The Magnuson-Stevens Act process provides for public participation in FMP and amendment development. Public input (including small entities) is provided throughout the regulatory development process through Council members who represent coastal

states, industry, and environmental groups; Advisory Panels; Scientific and Statistical Committees; Social and Economic Panels; Plan Development Teams; and ad hoc committees that Councils or the Secretary appoint when necessary. Public notification of each of these meetings is required, and public testimony is routinely taken. Further, some public meetings are recorded, and meeting summaries may be prepared. A record of the number of opportunities for small entity input may be constructed by listing the dates and locations of each public meeting held in which the proposed regulation was discussed. This record may be enhanced by including meeting summaries, attendance lists, and key issues identified by small entities. In many cases, this will satisfy the RFA requirements for public input (which must be documented in the FRFA).

V.6. Periodic Review of Significant Rules

Section 610 of the RFA requires agencies to plan for the periodic review of agency-issued rules that have or will have a significant economic impact on a substantial number of small entities. The purpose of this review is to determine whether such rules should be continued without change, amended, or rescinded, consistent with the stated objectives of the applicable statutes. In reviewing the rules to minimize any significant economic impact of the rule on a substantial number of small entities, the RFA requires consideration of the following factors:

- The continued need for the rule;
- The nature of complaints or comments received concerning the rule from the public;
- The complexity of the rule;
- The extent to which the rule overlaps, duplicates, or conflicts with other Federal rules, and, to the extent feasible, with State and local governmental rules; and
- The length of time since the rule has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the rule.

Although it is not necessarily the responsibility of the analyst to conduct the periodic review, the analyst may be called upon to provide information needed for the review, specifically regarding the first and last factors listed above.

Appropriate analysis during the early stages of a Council's or NMFS' decision-making process, as proposed in these guidelines, will help to assure that the alternatives chosen will be the ones that appear most likely to achieve the management objectives. However, variability in environmental or biological factors, fishing effort and practices, markets, the condition of the economy, or other factors may lead to results that are different from what was expected when the management action was implemented.

Monitoring the success of the management action and the factors that influence that success would facilitate the periodic review of rules. In addition, it would provide information that would improve the ability of the Councils and NMFS to develop more effective fishery management regulations and to assess the economic effects of existing and proposed regulations.

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APPENDIX A: Summaries of Legislative Requirements of Other Applicable Law

Appendix A provides summaries of the legislative requirements for the National Environmental Policy Act (NEPA), Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), Unfunded Mandates Reform Act (UMRA), Congressional Review of Agency Rulemaking, Endangered Species Act (ESA), and Marine Mammal Protection Act (MMPA).

National Environmental Policy Act

The NEPA (42 U.S.C. 4371 et seq.) requires a report on any proposed major Federal actions significantly affecting the quality of the human environment. The National Oceanic & Atmospheric Administration (NOAA) policy requires NEPA analysis for significant fishery actions. The required analysis includes evaluation of the following: (1) fishery impact on species protected under the Endangered Species Act and the Marine Mammal Protection Act, and (2) impacts on non-target fish species (e.g., bycatch or other incidental fishing mortality), and on fishery habitats.

Often, the first step in complying with NEPA is to conduct an Environmental Assessment (EA), which is a brief analysis of the environmental impacts of the proposed action and its alternatives, including sufficient evidence to determine whether the action may have a significant impact on the human environment. Alternatively, if it is clear that the proposed action will have significant impacts, the agency may prepare an Environmental Impact Statement (EIS) without first preparing an EA. If the EA indicates the action will have no significant impact, including economic impacts, on the human environment, a Finding of No Significant Impact (FONSI) is prepared. If the proposed action may result in significant impact on the human environment, an EIS is required. An EIS is a detailed report that describes the proposed action, the need for action, alternatives considered, the environment affected by the action, and the environmental consequences of the proposed action and reasonable alternatives (NOAA Administrative Order 216-6).

Magnuson-Stevens Fishery Conservation and Management Act and the National Standards

The Magnuson-Stevens Act (16 USC 1801 et seq.) requires the development and implementation of conservation and management measures to prevent overfishing, rebuild stocks, and promote the long-term health and sustainability of fisheries. Under section 303(a)(9) of the Magnuson-Stevens Act, any fishery management plan must include a Fishery Impact Statement (FIS), which assesses, specifies, and describes the likely effects, if any, of

the conservation and management measures on participants in the fishery or fisheries being managed, fishing communities, and participants in fisheries in adjacent areas. Analyses for FIS requirements should include assessments and descriptions of the economic and social impacts of the proposed action on various components of the fishery being managed, over the entire range of the regulated species, on participants in the fishery and in other fisheries, and on fishing communities.

Eight of the ten national standards for fishery conservation and management have implications for economic analysis:

1. National standard 1 requires that "Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry;" where "optimum yield" is defined in terms of the amount of fish which will provide the greatest overall benefit to the Nation.

2. National standard 2 requires that "conservation and management measures shall be based upon the best scientific information available."

3. National standard 4 requires that "Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges."

4. National standard 5 requires that "Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose."

5. National standard 7 requires that "Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication."

6. National standard 8 states that "Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks) take into account the importance of fishery resources to fishing communities in order

to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities."

7. National standard 9 requires that "Conservation and management measures shall, to the extent practicable, (A) minimize bycatch; and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch." NMFS has defined the term "to the extent practicable" to include a consideration of the effects of reducing bycatch and bycatch mortality on the overall benefit to the Nation.

8. National standard 10 requires that "conservation and management measures shall, to the extent practicable, promote the safety of human life at sea."

Unfunded Mandates Reform Act of 1995

The UMRA (Public Law 104-4) requires agencies to prepare a report if a Federal rule that includes a Federal mandate may result in the expenditure by state, local, and tribal governments in the aggregate, or the private sector, of \$100 million or more (adjusted for inflation) in any one year. The report must --

1. Identify the Federal law under which the rule is being promulgated.
2. Provide a qualitative or quantitative assessment of the anticipated costs and benefits of the mandate, including an analysis of the extent to which costs may be paid with Federal financial assistance and to which there are available Federal resources to carry out the mandate.
3. Provide estimates of the future compliance costs of the mandate, any disproportionate budgetary effects on particular regions, state, local, or tribal governments, urban or rural or other types of communities, or segments of the private sector.
4. Provide estimates of the effect on the national economy (e.g., on productivity, economic growth, full employment, creation of productive jobs, international competitiveness).
5. Describe the agency's consultation with elected representatives of the state, local, or tribal governments.
6. Summarize comments received.

7. Summarize the agency's evaluation of the comments.

8. Identify and consider a reasonable number of alternatives.

It should be noted that UMRA has a decisional criterion that the RFA does not have. A Federal agency is required to select the alternative with the least cost or with the least impact. Specifically, if a report is required, the agency must select the least cost, most cost effective, or least burdensome alternative that achieves the objectives of the rule.

Congressional Review of Agency Rulemaking

Under the Congressional Review of Agency Rulemaking Act (5 U.S.C. 801 et seq.), prior to promulgating a rule, agencies are required to submit to each house of Congress and to the Comptroller General a copy of a proposed rule, a statement as to whether it is a major rule, and the proposed effective date of the rule. If the rule is a major rule, the Comptroller General is required to report to Congress on whether the agency has complied with benefit-cost analyses required by E.O. 12866, the UMRP, the RFA, and any other applicable law or Executive Order.

Endangered Species Act

Section 7 of the ESA (16 U.S.C. 1531 et seq.) requires Federal agencies to use their authorities to conserve endangered and threatened species. The ESA does not provide for the consideration of economic impacts in making species listing decisions. Public comments are solicited before a final decision is made on the listing. Critical habitat necessary for the continued survival of a species may be designated at the time a species is listed. When designating critical habitat or issuing rules to establish protective measures, economic impacts must be considered. If a proposed fishery management action may affect an endangered or threatened species, a consultation must be conducted to ensure that the action is not likely to jeopardize the continued existence of the species or adversely modify critical habitat.

Marine Mammal Protection Act

The MMPA (16 U.S.C. 1361 et seq.) recognizes that certain species of marine mammals are in danger of extinction or depletion. It requires, among other things, that measures be taken to replenish any species or population that has fallen below its optimum sustainable population, and enacts a general prohibition on takes of marine mammals.

APPENDIX B: Typical Regulatory Process

FISHERY MANAGEMENT COUNCIL ACTIONS

The flow chart and the explanatory text following provide a description of how the Council regulatory process typically works. They are not a recommendation on how the process should work.

Problem Identification, Options Paper, Scoping, & Public Input:

These steps are initiated when a problem is identified through the annual report to Congress on the status of fish stocks, results from stock assessments, environmental concerns, public comments, etc. The Council prepares a scoping document explaining the problem and provides a number of options for dealing with the problem. This document goes through the public scoping process to obtain public input on the options that would be considered for solving the problem.

Council Reviews Public Input, Approves Alternatives:

This process enables the Council to select alternatives (during Council meetings) to be included in the Fishery Management Plan (FMP) or amendment. Usually the options are narrowed down, but, sometimes, new options are added.

Prepare Public Hearing Document, Preliminary Analysis, Public Hearing:

The alternatives are well defined. Sometimes a preferred alternative is selected. A preliminary analysis is prepared to indicate expected impacts of alternatives. A draft environmental assessment (EA) or a draft environmental impact statement (DEIS) is prepared at this time. If a DEIS is prepared, it is published in the Federal Register (FR) with a 45-day comment period. Comments on the DEIS are sent to the Council.

Note that the Preliminary Regulatory Economic Evaluation (PREE) or similar analysis recommended in the guidelines should be done at this time.

The document is taken to a series of public hearings. The number of hearings depends on the nature of the problem and the geographic extent of the fishery under consideration. The Council's Scientific & Statistical Committee (SSC), Social & Economic Panel (SEP), Advisory Panel (AP), and similar groups review and provide comments on the draft document.

Council Reviews Public Comments, Selects Preferred Alternative, Approves Document for Secretarial Review:

This process could go through more than one Council meeting. Detailed economic analysis of the likely impacts of the alternatives should be available at this time. The analysis should be done to meet the requirements of E.O. 12866 and of other applicable law. SSC, SEP, AP, and similar bodies meet to review measures in the draft document. The Council takes public comment at the meeting where the final vote is taken for the submission of the document.

Formal Regulatory Flexibility Analysis Process:

Once the regulatory document is approved for Secretarial review, the analyst uses information provided in the economic analysis to determine whether there is a factual basis to recommend certifying that the preferred alternative would not result in "significant economic impact on a substantial number of small entities." If this is possible, the analyst does not prepare an IRFA but provides the factual basis in the regulatory document. The regulatory package is then transmitted to the Regional Administrator. However, if there is no factual basis to recommend certification, the analyst prepares an IRFA which is included in the package before transmittal.

Council Submits Regulatory Package for Secretarial Review:

This package could include the transmittal letter, final FMP, FMP amendment, regulatory amendment, with FEIS (if an DEIS was prepared), an EA (if an DEIS was not prepared), an RIR, an RFAA with an IRFA (if one was prepared), or an annual specifications document; proposed rule, including the codified section of the rule. In some cases, the NMFS Region prepares the proposed rule with the concurrence of the Council.

Regional Administrator (RA) Reviews Regulatory Package:

During this review process, any serious deficiencies in the analytical supporting documents (i.e., lack of supporting analysis for PRA requirements or deficient RIR/IRFA analyses) for the regulatory package are resolved with the Council. Sometimes supplementary analysis or documents are prepared.

RA Transmits Issues Advisory (IA) to Assistant Administrator for Fisheries (F):

When the regulatory package is complete, the RA sends an IA to F providing a summary of major features of the management measures, outlining any controversial issues, and stating the controversy. If need be, HQ and RA discuss and resolve issues. Once resolved, F signs off on the IA and requests that RA formally transmit regulatory package to HQ.

Formal Transmittal of Regulatory Package, Formal Review Process Begins:

The day the package is formally transmitted is the day the regulatory clock starts ticking. At this stage, the FMP/amendment begins tracking through one process and the regulations track through another process.

Notice of Availability Published in the Federal Register (FR):

FMP/Amendment - Within 5 days, a notice of availability (NOA) is published in the FR. A comment period is open for 60 days from the date of publication of the NOA. Public comments are received. Comments could affect approvability of measures proposed in the FMP/amendment. At the end of the 60-day comment period, NMFS HQ has 30 days to approve, partially approve, or disapprove the FMP/Amendment.

Regulations - During an initial 15-day period, NMFS (HQ and the Region) and NOAA General Counsel for Fisheries (NOAA - GCF) evaluate the proposed rule to make sure the measures it contains are consistent with the FMP/Amendment, the Magnuson-Stevens Act and other applicable law. If the determination is affirmative, the proposed rule and its measures continue to be reviewed and processed by the Office of Sustainable Fisheries (F/SF) and NOAA - GCF for publication in the Federal Register. If the determination is negative, NMFS on behalf of the Secretary of Commerce notifies the Council in writing of inconsistencies and provide recommendations on revisions to make the proposed measures consistent with the FMP/amendment, the Magnuson-Stevens Act, and other applicable law (see section 304 of the Magnuson-Stevens Act).

There is normally a 45-day comment period during which comments are solicited from the public. At the end of the comment period, the NMFS Region compiles all comments received and prepares responses to those comments. NMFS responds to all comments received on the FMP/amendment and the rule. These comments could pertain to the Magnuson-Stevens Act, including national standards, E.O. 12866, IRFA, NEPA, and to other applicable law. These comments and responses are included in the final rule. If an IRFA has been already prepared, an FRFA is now being prepared, which should address comments pertaining to the IRFA and to any changes in the analysis contained in the IRFA as a result of the comments received. The final rule is published 30 days after the end of the comment period. The final rule becomes effective 30 days after it is published in the Federal Register unless there is a waiver or an extension of the 30-day period.

Initial OMB Clearance:

OMB reviews only those rule that it determines significant under E.O. 12866. NMFS prepares a listing document for OMB which

indicates whether NMFS considers the rule to be significant or not. This is sent to OMB during the initial evaluation of the proposed rule (15-day period). If OMB concurs with NMFS that the rule is not significant, the OMB review process ends at this point. Because OMB can overrule NMFS' determination, if the rule is significant, OMB advises the Office of General Counsel /Department of Commerce (OGC/DOC) and OGC/DOC informs NMFS. OMB has to give clearance before any proposed rule that is determined to be significant is published. When the rule is determined to be significant, the analysis goes through more scrutiny by OMB to ensure that the requirements of E.O. 12866 are met. If any part of the required analysis is missing, OMB requests additional analysis to correct this deficiency. If OMB determines that the rulemaking is significant under E.O. 12866, it also reviews and clears the final rule before it is published in the Federal Register. OMB usually reviews the rule only, but occasionally, it reviews also the FMP or amendment.

Small Business Administration (SBA):

The proposed rule, along with the IRFA (if one was prepared) or the certification letter (if the agency decides to recommend certification to OGC/DOC), is sent to the Chief Counsel for Advocacy of the Small Business Administration at the same time the proposed rule is sent to the Office of Federal Register for publication in the Federal Register. SBA has 45 days to comment.

HIGHLY MIGRATORY SPECIES FISHERY MANAGEMENT ACTIONS

The flow chart and the explanatory text following provide a description of how the Highly Migratory Species (HMS) regulatory process typically works. They are not a recommendation on how the process should work.

Problem Identification, Scoping Document & Preliminary Analysis:

These steps are initiated when a problem is identified through the annual report to Congress on the status of fish stocks, results from stock assessments, environmental concerns, public comments, etc. The HMS Division within the Office of Sustainable Fisheries (F/SF) prepares a scoping document explaining the problem and provides a number of options for dealing with the problem. A preliminary economic analysis of the expected impact of the options is also prepared. Note that the Preliminary Regulatory Economic Evaluation (PREE) or similar analysis recommended in the guidelines should be done at this time. The Advisory Panel meets to review the scoping document before it goes out to public scoping.

Scoping and Public Input

This document goes through the public scoping process to obtain public input on the options that would be considered for solving the problem. This process enables the HMS Division to select alternatives to be included in the Fishery Management Plan (FMP) or amendment. Usually the options are narrowed down, but, Sometimes, new options are added.

Prepare Draft Fishery Management Plan or Amendment:

The alternatives are well defined. A preferred alternative is selected. A draft environmental assessment (EA) or a draft environmental impact statement (DEIS) is prepared at this time. If a DEIS is prepared, it is published in the Federal Register with at least a 45-day comment period.

The analyst uses information provided in the preliminary economic analysis to determine whether there is a factual basis to recommend certification that the preferred alternative would not result in "significant economic impact on a substantial number of small entities." If this is possible, the analyst provides the factual basis in the regulatory document. The notice of availability is submitted for publication in the Federal Register without the preparation of an IRFA. If there is no factual basis to recommend certification, the analyst prepares an IRFA which is included in the package.

Formal Transmittal of Regulatory Package, Formal Review Process Begins:

The day the package is formally transmitted is the day the regulatory clock starts ticking. At this stage, the FMP or amendment begins tracking through one process, and the regulations track through another process.

Notice of Availability Published in the Federal Register (FR):

FMP/Amendment - A notice of availability (NOA) is published in the Federal Register. A comment period is open for 60 days from the date of publication of the NOA. Public comments are received. Comments could affect approvability of measures proposed in the FMP or amendment.

Regulations - The HMS Division prepares a draft proposed rule, which NOAA General Counsel for Fisheries (NOAA - GCF) evaluates to make sure the measures it contains are consistent with the FMP or amendment, the Magnuson-Stevens Act and other applicable law. The proposed rule and its measures continue to be reviewed, edited, and processed by the F/SF and NOAA - GCF for publication in the Federal Register. There is a 60-day comment period (which may include public hearings) during which comments are solicited from the public.

Advisory Panel Reviews Public Comment

An Advisory Panel meeting is held during or toward the end of the comment period to review public comments received to date and to make recommendations to the NMFS.

Preparation of Final Document

At the end of the public comment period, the HMS Division compiles all public comments and Advisory Panel's recommendations. The HMS Division prepares responses to public comments on the FMP or amendment and the rule. These comments could pertain to Magnuson-Stevens Act including national standards, E.O. 12866, IRFA, NEPA, and to other applicable law. These comments and responses are included in the final rule. If an IRFA has been already prepared, an FRFA is now being prepared. The FRFA should address comments pertaining to the IRFA and to any changes in the analysis contained in the IRFA as a result of the public comments received. The final rule is published 30 days after the end of the comment period. The final rule becomes effective 30 days after it is published in the Federal Register unless there is a waiver, or an extension of the 30-day period.

Initial OMB Clearance:

OMB reviews only those rule that it determines significant under E.O. 12866. NMFS prepares a listing document for OMB which indicates whether NMFS considers the rule to be significant or not. This is sent to OMB during the initial evaluation of the

proposed rule (15-day period). If OMB concurs with NMFS that the rule is not significant, the OMB review process ends at this point. Because OMB can overrule NMFS' determination, if the rule is significant, OMB advises the Office of General Counsel /Department of Commerce (OGC/DOC) and OGC/DOC informs NMFS. OMB has to give clearance before any proposed rule that is determined to be significant is published. When the rule is determined to be significant, the analysis goes through more scrutiny by OMB to ensure that the requirements of E.O. 12866 are met. If any part of the required analysis is missing, OMB requests additional analysis to correct this deficiency. If OMB determines that the rulemaking is significant under E.O. 12866, it also reviews and clears the final rule before it is published in the Federal Register. OMB usually reviews the rule only, but occasionally, it reviews also the FMP or amendment.

Small Business Administration (SBA):

The proposed rule, along with the IRFA (if one was prepared) or the certification letter (if the agency decides to recommend certification to OGC/DOC), is sent to the Chief Counsel for Advocacy of the Small Business Administration at the same time the proposed rule is sent to the OFR for publication in the Federal Register. SBA has 45 days to comment.